deserve first to be mentioned. The bronze horses, presented to the king by the Emperor Nicholas, will also soon be placed, and a bronze railing and gates, the extensive structures in the *Foria*, &c., will add to the charms of the modern Parthenope. The Emperor of Russia has given orders to several Neapolitan artists; amongst which, the marble bust of the king, made by T. Angelini, is the most important. For the commemoration of the opening of the Caserta railway, a very fine medal has been struck, presenting, on one side, the portrait of the king, on the other, the terminus near the royal palace. The number of art publications and journals is increasing every day.

The late Art Exhibition at the Louvre.—One of the first art-critics of France (Mr. Délecluse) has put forth some remarks on this subject, from which we gather the following:—"A cursory glance at this—nay any other art-exhibition, shews, that a notable modification and change take place in the taste and art-tendencies of the times. In the composition of painters and statuaries, even of first rank, in execution and style, we still find a desire to *exaggerate* the graceful, to offer incentives to sensual thought—to rivet, in fine, the attention and interest of the beholder, by scenes and attitudes which appeal to the most inferior propensities of the human *mind*. (*) We first began to joke at the *Rococo*, and similar absurdities, but now have fallen into them heels over head, without any prospect even of speedy recovery.

But there is for aspiring artists a great part to perform in such times of art-perturbation and perversion—of which the *pendant* was the period preceding the downfall of the Roman empire. The artist thus disposed and really inspired from above, would have to make one first resolve—to *renounce riches*; which, after all, is one of the main conditions for keeping the mind riveted on the beautiful, the honest, and the true. If, further, led by a pure taste, he would abhor the *mannerism* in sentiment and form, and persevere on this path—he would finally succeed. But a more or less long life of hardship (*vie dure*) would be the consequence of such heroic resolve—no white gloves, no glazed shoes, which, perhaps, do not exactly shew want of talent, but are despised by the aspiring. Such would remain long on the stools of museums and galleries—would study every hour of the day, ripen his mind, cultivate imagination, master his hand.

It was thus, that out of the last and feeble array of pupils of the Carscels started, with much labour, but also great fame,—the Poussins and the immortal Lesueur. It was subsequent to the art-Saturnalia of 1780, that Louis David astonished France, in shewing his stern and simple images like ghosts—apparitions amongst a gewgaw of tinsel and other frippery. For the last five or six years, I have attentively followed the career of artists who were intent on discovering some new system or method of art. Some attempt it by drowning themselves in the gulf of *Gothicism*; but the impossibility for the artist and beholder to familiarize themselves with allegories and forms nearly exploded, has merely produced some pastry-cook specimens—but no real art-work. After all, the pithy saying of Voltaire (somewhat changed), may also be applied to art: "Tout le genre est bon—hors le *vulgaire*."

Madrid.—The Casa de Correos, which has hitherto been occupied by the Minister of the Interior, is destined for the newly created department of commerce, instruction, and public works; the former to occupy a new palace in the Calle de Turija. The Secretary of Public Works has just issued a document, in which (perhaps for the first time in Spain) this important branch of the public service is put in due relief. The ancient steeples of Santa Cruz and del Carmen threaten destruction, and will be examined by a commission of architects, and probably be taken down. *El Heraldo* says, that no one can pass them without running, and a *Credo* on his lips.

Schwerin.—Amongst the different officers who acted at a festival meeting of the Lodge Harpocrates and Aurora, we find also the superior — orders — Architect de Selasinsky, lieutenant-general in the Prussian service.

"Inverted" Patriotism.—Prince Lichtenstein, of Vienna, has just taken possession of his new palace in the Schneckenstrasse (Crab-street), at whose restoration and adornment four millions of florins (600,000*l.*) have been spent during a period of eight years. His grace plumes himself on the ambiguous merit of not having employed therein any thing of national industry, but brought every article of furniture or ornament from France and England.

Franklin's Grave.—The place where the mortal remains of this great man rest now, is merely designated by a simple rough stone in the cemetery of Arch-street, Philadelphia. The compositors of Rochester, U.S., have lately decided on erecting a monument to their great prototype. As, however, the cemetery of Arch-street belongs to the Society of Friends, it is apprehended, that they will not agree to the erection of any thing showy or ornamental within its precincts.

ON THE PROTECTION OF BUILDINGS FROM LIGHTNING.*

It would be a labour of much time to recite the records of the serious effects of disrupted discharges of electricity upon unprotected buildings, &c., that are collected; we need only go back to the occurrences of the last few years, such as those of the partial destruction of St. Martin's and St. Michael's Churches, Liverpool; St. Michael's, Blackrock, Ireland; and nearer to this, Brixton Church, early in 1842; and our own church, St. Martin's-in-the-Fields, later in the same year; to illustrate the awful and dangerous nature of a discharge of this element upon buildings unprotected from its fury.

The results of experimental inquiry and practical application have shewn that in the consideration of conductors they should (1) be composed of the best conducting metal (commercially considered); (2) they should possess a perfect continuity in all their parts; (3) they should have the greatest electrical capacity, and (4) in form should have the greatest amount of surface for a given quantity of material. Where these conditions are fulfilled, their application to buildings require the first consideration—their superior terminals should be securely fixed above the highest immediately surrounding object, and be continued in the shortest and most direct line to the earth, being in their course downward fixed closely and securely to the external walls of the building, terminating at their inferior extremity, below the surface of the ground, from the wall dipping downwards. Where practicable, they should be continued into some well, drain, or damp place away from the building. Another and important point, about which there has until lately been much cavil, is, that not only should the conductor be fixed close to the wall, but be connected also with all the principal metallic surfaces in the building. To fulfil the first condition, copper, as a material for the construction of conductors, has been found the best in a commercial point of view; for the second and third conditions, copper-rods, copper-chain, copper tube, flat copper strips, and copper-wire rope, have been severally proposed, recommended, applied, and tested. To fulfil the fourth condition, copper strips, copper tubes, and copper-wire ropes have been also proposed and tried.

We will proceed to consider the relative merits, advantages, and disadvantages of the several forms in the order as recited in connection with the second consideration, beginning with the copper rod. This form has been applied the most extensively; the mean diameter of those erected is half an inch, or an inch; they have been applied to churches, towers, monumental pillars, chimney-shafts, and high buildings of every kind, with success. The objections to this form, since the introduction of others, are, that for plain and straight buildings, such as the gable end of houses, for chimney-shafts, &c.; but, the number of joints render the perfect continuity dependant upon the care and skill of the workmen employed; 2nd, the expense of making these joints; 3rd, the greater cost for a given surface, &c. For other forms of buildings, as spires, towers, &c., where the conductors require to be bent, set, and fitted in various positions, the waste of material in cutting, and the time required in applying and connecting the lengths of rod, and the expense attendant thereon, are amongst the principal objections. The chain possesses no advantage over the rod conductor for buildings.

The next form is that of the tube. When intended for buildings, this form, if of sufficient size, possesses equal advantages with the rod; but in addition to having the disadvantages of that form in a much greater degree, is besides more easily injured, and after a time broken. For marine purposes, the same reasons for its inapplicability exist as in the copper rod.

Flat copper strips, or ribands, for building purposes, possess no advantages over the rod, and are as difficult of application, and considerably more expensive.

The next and last form of conductor to which we have to draw attention is the patent copper wire-rope. This form completely fulfils the several conditions recited in a former paper, viz., it is composed of the best conducting metal (commercially considered), it possesses the most perfect continuity of its parts, it has ample electrical capacity, and its form gives the greatest amount of surface for the quantity of material employed. It meets the objections urged against copper rods, as regards the shortness of the lengths in which that material can be obtained, and the consequent number of pieces and joints necessary in the formation of a conductor for a high building, as the rope can be produced in extremely long lengths; it is applied much more readily, and with greater facility adapted to angles and other forms and surfaces; it is easier fixed and in much less time, at a considerably less cost. It possesses all the enumerated conditions of a perfect and sufficient electric conductor, with the advantage of the method of applying chains, without the objections which attend that form of conductor.

It is necessary to give some idea of the relative capacities and powers of the metals which stand first on the list as the best conductors of electricity; for it was observed by Dr. Priestly and others that an electrical explosion which scarcely heated a copper wire of a given diameter, entirely dissipated an iron rod, of more than twice its diameter. Now of the common metals of commerce, if lead be taken as unity (= 1)—tin is = 2—iron = 2·5—zinc = 4, and copper = 12. Thus, copper is twelve times a better conductor than lead, and five times better than iron. Of gold, silver, platinum, &c., which are superior to copper, it is unnecessary here to give the relative powers, their commercial value precludes their use for the practical purpose of conductors, but they possess an advantage in another respect over copper, &c., viz., that they are less acted upon by the atmosphere, resist oxydation (especially the latter metal), and preserve their conducting power unchanged; in consequence of which platina in particular, is applied to the fine points of the finial or superior termini of copper conductors, as copper, when worked under the hammer and drawn down to a fine point, after the lapse of two or three years, gradually moulders away and rots off.

* From a paper by Mr. W. Snaith, engineer, referred to last week.

CAMBRIDGE.—The Public Club-Chamber scheme formed the subject of a special meeting, on Thursday week, when the report of the committee of citizens who had undertaken the preliminary arrangements was presented and read. This report merely represented the purposes to which such an edifice as that proposed might be most advantageously devoted, the sources whence the requisite funds might be derived, &c., as already more particularly noticed in THE BUILDER. Although no precise estimate of cost had been obtained, Mr. Ekin spoke of an estimate of 11,000*l.* for 'the original plan,' not so extended as the present one, which, according to Mr. Bradwell, would not cost more than 15,000*l.*, although the monstrous sum of 70,000*l.* had been hinted at, probably by some one adverse to the proposal. Cambridge, he thought, could surely grapple with the more moderate sum required. The corporation appointed a committee to consider the whole subject. King's College Chapel has of late had a painted window added to it. The subject represents the scene of 'the Brazen Serpent.' Four of the old windows on either side have now been cleaned, and the next will be taken down immediately after the installation of H.R.H. the Prince Consort.